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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/030,593

10/29/2002

Robert Lance Cook

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EXAMINER

THOMPSON, KENNETH L

ART UNIT

PAPER NUMBER

3672

MAIL DATE

DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/030,593	Applicant(s) COOK ET AL.	
	Examiner Kenneth Thompson	Art Unit 3672	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 February 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 7-61, 64-66, 68-77, 79-84, 86-132, 135, 141 and 142 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 7-61, 64-66, 68-77, 79-84, 86-132, 135, 141 and 142 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 October 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the axial flow passages having a filter or obstruction in communication with the grooves on the outer surface and the support member and the expansion cone housing must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 57- 60 recites the limitation "necking". There is insufficient antecedent basis for what structurally constitutes a "neck" or "necking" in support of this limitation in the claims.

Claim 7 recites the packer slidingly and sealingly coupled to a support member, there is insufficient antecedent basis for the limitations requiring. The disclosure provides a stationary packer on the upper end of a telescoping mandrel.

Claims 21, 99 and 119 recite filtered or obstructed axial flow passages in communication with outer surface grooves; whereas figures 43 and 44 show a single inner aperture and insert.

Claim Objections

Claims 70, 81, 88, 108-110 and 120 are objected to because of the following informalities:

The recitation "an expansion cone that will be used to radially expand the tubular member" is misleading as to whether the expansion cone is a structural limitation of the claim since its use is subsequent.

The recitation "the angle of inclination of the axial flow passages" and "the angle of attack of the first tapered end" of claim 26, 28, 102 lack antecedent basis. Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 61, 64, 66, 68, 69, 71-77, 79, 80, 82-84, 86, 87, 111, 112, 126-128 and 142 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dunn, U.S. 2,261,056 in view of Coplan, U.S. 4,709,831.

Dunn discloses an intermediate section (2) having a thinner wall thickness than an expanded greater diameter, upset female threaded end (4) portion (p. 2, left col. lines 2-19; 60-75) which is at least as resistant to pressure. Dunn discloses the threaded female portion (4) being 3 to 10 percent larger than the intermediate portion (p. 2, left col. lines 47-52); wherein the pipe is normalized (p. 2, right col., lines 4-12). Dunn is silent on double female threaded ends. Coplan teaches use of a double female threaded pipe having additional layers of epoxy. It would have been obvious to one having ordinary skill in the art at the time of the invention to arrange for the pipe of Dunn to include an additional female joint and epoxy layers for protection and to secure to a male joint as need to achieve predictable results. Applicants should note the method of expanding the tubular is not germane to the tubular itself and is not given patentable weight, wherein the prior art discloses all the claimed structural features; nor failure following "if" is the considered option. Dunn nor Coplan state the degree range for the transition taper at the angle of inclination. However it would have been obvious to one

having ordinary skill in the art at the time of the invention to make the design choice for the transition angle to be within a desired range.

Claims 8, 13, 24, 26, 35, 121, 124, 125, rejected under 35 U.S.C. 103(a) as being unpatentable over Suetomi, JP 5,700,9542 A.

Suetomi discloses all the claimed limitations except for the spacing and size of the passages; angle of attack; and fluid selection. However it would have been obvious to one having ordinary skill in the art at the time of the invention to make the design choice for spacing and size of the grooves; angle of attack; and lubricant selection as needed to achieve predictable results.

Claims 43-45, 47, 54-56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alekhin et al., U.S. 3,903,724.

Alekhin et al. discloses all the claimed limitations except for the fluid selection. However it would have been obvious to one having ordinary skill in the art at the time of the invention to select a suitable lubricant as needed to achieve predictable results.

Claim 141 is rejected under 35 U.S.C. 103(a) as being unpatentable over Alekhin et al., U.S. 3,903,724 in view of Abdrakhmanov et al., RU 2,002,035.

Abdrakhmanov et al. discloses the pair of expanded tubular members. Alekhin et al. disclose a method of expanding a tubular. It would have been obvious to one having

ordinary skill in the art at the time of the invention to make use of a known method of expanding a tubular to achieve predictable results.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 8, 17-22, 23, 28-34, 36-41, 46, 48-53, 99, 100-107, 113-119, 122, 123, 129, 131 as best understood by the Examiner are rejected under 35 U.S.C. 102(b) as being anticipated by Alekhin et al., U.S. 3,903,724.

Alekhin et al. discloses an expansion cone having two tapered (1, 2) ends, a parabolic taper (3), a parabolic groove (11) having spiraled legs on the cone circumference and axial flow passages (4, 5) within the circumferential perimeter in communication with (col. 2, lines 55-61) the groove (11). Alekhin et al. discloses the parabolic groove exceeding the width of the passages (4,5). Alekhin et al. discloses the groove (11) including a flow channel (4, 5) having a first radius of curvature at the inlet of the bore (5) at the taper (3) and distal ends of the channel (4) in the bore (second radius) and aft end (third radius) of the cone. Alekhin et al. discloses lubricant injection (col. 1, lines 40-45) into the passages (4,5) and groove (11).

Claims 8-12, 14-16, 27 are rejected under 35 U.S.C. 102(b) as being anticipated by Suetomi, JP 5,700,9542 A.

Suetomi discloses all the claimed limitations including circumferentially spaced spiraling grooves (9) on an expander (8).

Claims 8, 89-92, 95-98 are rejected under 35 U.S.C. 102(b) as being anticipated by McTear, U.S. 880,563.

McTear discloses all the claimed limitations including a housing (e) and cone having curved tapered sections (i), circumferential grooves (k) and an axial channel (g).

Claims 93, 94, 132, 135 are rejected under 35 U.S.C. 102(b) as being anticipated by Abdrakhmanov et al., RU 2,002,035.

Abdrakhmanov et al. discloses a first casing (4) overlapping a casing (6) which overlaps a casing (10) all radially expanded at an end portion.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenneth Thompson whose telephone number is 571 272-7037. The examiner can normally be reached on 6:00 am - 2:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David J. Bagnell can be reached on 571-272-6999. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3672

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

27 February 2008

/Kenneth Thompson/
Primary Examiner, Art Unit 3672